CIESM Congress Session : Zooplankton II , including gelatinous plankton

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Moderator's Synthesis

About 30 people attended the session. The debate ensuing the presentations was very lively and addressed several topics.

Increase of gelatinous plankton: the question of whether such increase is perceived or real, and, if so, whether it is due to global warming or overfishing, was not directly answered. However, several examples proposed by the audience and speakers indicated the importance of this subject. For example, the jellyfish invasions and the new sighting of the *Discomedusa lobata* in the Marmara Sea; the huge 2006-08 jellyfish blooms which affected the Mediterranean ecosystem; the current blooms of *Mnemiospis leidyi* in all coastal areas in the Adriatic; the relatively recent first sighting of *Mnemiospis leidyi* in the Ligurian Sea and its now regular occurrence there,

Overall the audience indicated that gelatinous zooplankton is considered a priority study area, as well as investigating the factors of the blooms, such as global warming and ballast waters discharge. With regard to *Mnemiospis leidyi*, the question of whether its relatively new presence in some area may yield the possibility of an ecological regime shift in the future was not resolved, however it was shared that this species should be closely monitored..

Taxonomy : Another topic of discussion concerned taxonomic vs automatic (optical, acoustical) recognition of species. While these different approaches should be complementary, the actual funding might be antagonistic. The fundamental importance of taxonomy was once more repeated, as well as the current continual loss of taxonomical expertise. It was suggested to set an inventory of expertise in the Mediterranean/ Black Sea region..

Ecosystem resilience and tipping points: A final topic considered of importance for research is the link between temperature increase and northward migration of marine species, as followed by the CIESM Tropical Signals program with ensuing decreased ecosystem resilience and increased risk of approaching tipping points.

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